

REMARKS

Claims 1-22 are now in the application. Claim 1 has been amended to recite the preferred component suppressing an allergen and namely “a water-insoluble polymer compound”. Basis for the amendment to claim 1 can be found at page 10, lines 24-29 of the specification. Newly presented claim 21 relates to prepared water-insoluble polymer compounds and namely a “polymer of at least one aromatic hydroxyl compound”. Claim 9 has been amended by deleting the phrase “the step of”. Basis for new claim 21 can be found at page 10, line 34 to page 11, line 1 of the specification. Basis for new claim 22 can be found, for example, at paragraph [0071] of the published application. The amendments to the claims and newly presented claims 21 and 22 do not introduce any new matter.

Claims 1-6 and 8-19 were rejected under 35 USC 102(b) as being anticipated by US Patent application publication 2002/0182184 to Pearl et al. (hereinafter also referred to as “Pearl”). Claims 7 and 20 were rejected under 35 USC 103(a) as being obvious over US Patent application publication 2002/0182184 to Pearl et al. Pearl does not anticipate and does not render obvious the present invention since, among other things, Pearl does not disclose a water-insoluble polymer compound that suppresses allergen.

The allergen suppressor of the present invention contains a hydrophilic polymer and a component suppressing an allergen. As mentioned above, the claims now recite a water-insoluble polymer compound as an allergen suppressor. The hydrophilic polymer can form a reaction field capable of causing an interaction with an allergen by collecting water molecules in the air. The reaction field capable of causing an interaction with the allergen refers to a reaction field for exerting some chemical interaction in order to suppress the antigenicity of a site (epitope), where the allergen develops the antigenicity, and it refers to a reaction field where spontaneous chemical reaction can take place. For example, this occurs by stabilizing an electrochemical transition state such as an ionized state to lower the level of an energy barrier in a transition state of a chemical reaction. Generally in order to lower the level of an energy barrier in a transition state, which is needed for initiating a chemical reaction, water in liquid form is required. However

contrary to this and according to the present invention, it is not necessary to sprinkle water or the like as discussed in the prior art. With the allergen suppressor and the allergen-suppression processed fiber of the present invention, the needed reaction field can be formed by collecting water in air. The present invention makes it possible to exert an effect of suppressing an allergen under normal room conditions, for example, in an atmosphere of not more than 50 g/m^3 in absolute humidity.

Pearl suggests an enzymatic cleaning composition that comprises an enzyme and/or a bacterial spore substance capable of producing enzymes, a wetting agent, an odor-encapsulating agent, a neutralizing agent, a surfactant-encapsulating agent, an embrittling agent and water. The mechanism of Pearl et al. for removing allergens is digestion of allergens (protein) by enzymes. This digestion occurs in a water solution. Thus the enzymatic cleaning composition of Pearl, et al. necessarily includes "water". Please see Examples of Pearl et al. In particular, the water based compositions were first produced. Old carpet was then treated with 4 ounces of the composition and allowed to air dry for 8 hours followed by a thorough vacuuming. The effect of the enzymatic cleaning composition of Pearl et al. is not carried out under dried conditions. Pearl does not disclose or even remotely suggest a water-insoluble polymer compound that suppresses allergen (claim 1 as amended) and further fails to disclose employing a polymer of at least one aromatic hydroxyl compound (claim 21).

As described above, the mechanism of the present invention for suppressing allergens is quite different from that of Pearl et al. As mentioned above, the present invention does not require adding liquid water. The reaction field capable of causing an interaction with the allergen is formed by the hydrophilic polymer. Thus once the allergen of the present invention is treated (e.g.-the water-insoluble polymer compound), the suppressing effect continue even under normal room conditions, for example, in an atmosphere of not more than 50 g/m^3 in absolute humidity. Along these lines, please see Examples and Table I of the present application. It is found that in the cloths made of allergen-suppression processed fiber prepared in Examples, the amount of the allergen, which had been at a high level, immediately after preparation of the sample, was reduced

by a large and significant amount after being left standing for 15 hours in a thermo-hygrostat. Furthermore, the suppressing effect according to the present invention can continue even when the component suppressing an allergen is applied to a product that often come into contact with water through cleaning or the like in the daily life of a fiber (please see page 10, lines 24-29 of the specification).

In addition, claims 8, 9 and 22 being directed to an allergen-suppression processed fiber are patentable for at least the additional reason that providing an allergen-suppression processed fiber would seemingly be contrary to the suggestions of Pearl et al. Pearl discloses that when fabric surfaces are treated with the compositions therein, the fabric surfaces are vacuumed to remove the dried composition. Please see column 4, lines 15-17 thereof.

In view of the above, consideration and allowance are respectfully solicited.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

The Office is authorized to charge any necessary fees to Deposit Account No. 22-0185, under Order No. 21581-00443-US from which the undersigned is authorized to draw.

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Respectfully submitted,

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